

We claim:

1 1. A method for visualizing dynamic documents in a graphical user interface,
2 comprising the steps of:
3 generating a summary view of at least one dynamic document including data from
4 an ongoing process and containing instances of search terms, using a
5 condensed abstract representation of a search term density distribution;
6 updating said summary view to reflect changes in said dynamic document; and
7 triggering an enhancement of said summary view by cursor brushing.

1 2. The method of claim 1 comprising the further step of navigating to at least one
2 segment of said dynamic document by selecting a corresponding portion of said
3 summary view.

1 3. The method of claim 1 comprising the further step of computing a statistical summary
2 of contents of a selected document portion.

1 4. The method of claim 1 comprising the further step of identifying said relevant
2 dynamic documents with at least one search engine.

1 5. The method of claim 1 comprising the further step of aggregating information to
2 enable a more condensed abstract representation of said dynamic document.

1 6. The method of claim 1 wherein said updating step is performed periodically.

1 7. The method of claim 1 wherein said updating step is performed continuously.

1 8. A system for visualizing dynamic documents in a graphical user interface comprising:

2 a summary view of at least one dynamic document including data from an

3 ongoing process and containing instances of search terms, using a

4 condensed abstract representation to depict a search term density

5 distribution;

6 an updating mechanism to reflect changes in said dynamic document in said

7 summary view; and

8 an enhancement of said summary view triggered by cursor brushing.

1 9. The system of claim 8 wherein at least one segment of said document is navigated to
2 by selection of a corresponding portion of said summary view.

1 10. The system of claim 8 wherein said dynamic document comprises at least one of: a
2 text file, an image file, a web page, an audio file, a video file, streaming data.

1 11. The system of claim 8 wherein said dynamic document includes medical data.

1 12. The system of claim 8 wherein said dynamic document includes images from a
2 number of cameras.

1 13. The system of claim 8 wherein said dynamic document includes data from a security
2 system.

1 14. The system of claim 8 wherein said dynamic document includes data describing the
2 behavior of a number of computer users.

1 15. The system of claim 8 wherein said dynamic document includes stock market data.

1 16. The system of claim 8 wherein said dynamic document includes chat room data.

1 17. The system of claim 8 wherein said search terms include user-specified events
2 defined by significant changes in said data from said ongoing process.

1 18. The system of claim 8 wherein said summary view includes a number of distinct
2 regions, each region having a different resolution scale, enabling information to be
3 depicted at different levels of detail.

1 19. The system of claim 18 wherein said resolution scale is a time scale.

1 20. The system of claim 8 wherein said abstract representation is nonlinear.

1 21. The system of claim 8 wherein said summary view depicts more recent events with
2 higher resolution than less recent events.

1 22. A system for visualizing and navigating dynamic documents in a graphical user
2 interface comprising:

3 means for generating a summary view of at least one dynamic document

4 including data from an ongoing process and containing instances of search
5 terms, said summary view depicting a search term density distribution in a
6 condensed abstract representation;

7 means for updating said summary view to reflect changes in said dynamic
8 document; and

9 means for triggering an enhancement of said summary view by cursor brushing.

1 23. A computer program product comprising a machine-readable medium having
2 computer-executable program instructions thereon including:
3 a first code means for generating a summary view of at least one dynamic
4 document including data from an ongoing process and containing
5 instances of search terms, said summary view depicting a search term
6 density distribution in a condensed abstract representation;
7 a second code means for updating said summary view to reflect changes in said
8 dynamic document; and
9 a third code means for triggering an enhancement of said summary view by
10 cursor brushing.